WHAT IS CLAIMED IS:

1. A dry etching apparatus comprising:

a first electrode;

an evacuable chamber;

a plurality of second electrodes in said chamber, said plurality of second electrode being independent from each other; and

a plurality of high-power sources,

wherein said high-frequency power sources are independently connected to each of said first electrode and said plurality of second electrodes, and

wherein a material film on a substrate disposed on said plurality of second electrodes is etched by plasma generated between said first electrode and said plurality of second electrodes.

2. A dry etching apparatus according to claim 1, wherein said plurality of second electrodes comprises an electrode disposed below a central portion of said substrate, and electrodes disposed below corner portions of said substrate.

3. A dry etching apparatus according to claim 2, wherein an area of said electrode disposed below said central portion of said substrate is larger than that of said electrodes disposed below the corner portions of said substrate.

4. A dry etching apparatus according to claim 1, wherein said plurality of second electrodes have the same shape and size.

5. A dry etching apparatus according to claims 2, wherein among said plurality of second electrodes, a high-frequency power applied to said electrode disposed below said central portion of said substrate is different from that applied to said electrodes disposed below corner portions of said substrate.

6. A dry etching apparatus according to claims 2, wherein among said plurality of second electrodes, a frequency of a high-frequency power applied to said electrode disposed below said central portion of said substrate is the same as that of a high-frequency power applied to said electrodes disposed below said corner portions of said substrate.

7. A dry etching apparatus according to any one of claims 1, wherein said substrate has an area of 0.3 m^2 or more.

8. A dry etching apparatus comprising:

a first electrode formed of a plane coil;

an evacuable chamber;

a plurality of second electrodes in said chamber, said plurality of second electrode being independent from each other;

a first high-power source connected to said first electrode; and

a plurality of second high-power sources independently connected to each of said plurality of second electrode,

wherein a material film on a substrate disposed on said plurality of second electrodes is etched using plasma generated by application of an AC electric field between said first electrode and said plurality of second electrodes.

9. A dry etching apparatus according to claim 8, wherein said plurality of second electrodes comprises an electrode disposed below a central portion of said substrate, and electrodes disposed below corner portions of said substrate.

10. A dry etching apparatus according to claim 9, wherein an area of said electrode disposed below said central portion of said substrate is larger than that of said electrodes disposed below the corner portions of said substrate.

11. A dry etching apparatus according to claim 8, wherein said plurality of second electrodes have the same shape and size.

12. A dry etching apparatus according to claims 9, wherein among said plurality of second electrodes, a high-frequency power applied to said electrode disposed below said central portion of said substrate is different from that applied to said electrodes disposed below corner portions of said substrate.

13. A dry etching apparatus according to claims 9, wherein among said plurality of second electrodes, a frequency of a high-frequency power applied to said electrode disposed below said central portion of said substrate is the same as that of a high-frequency power applied to said electrodes disposed below said corner portions of said substrate.

14. A dry etching apparatus according to any one of claims 8, wherein said substrate has an area of 0.3 m^2 or more.

15. An etching method using a dry etching apparatus provided with a first electrode and a second electrode opposed to each other, the method comprising the steps of:

disposing a substrate on said second electrode comprising a plurality of electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure:

applying a first high-frequency power to an electrode disposed below a central portion of said substrate and applying a second high-frequency power to electrodes disposed below corner portions of said substrate to supply an AC electric field between said first electrode and said second electrode;

generating plasma between said first electrode and said second electrode; and

etching a material film on said substrate disposed on said second electrode.

16. An etching method according to claim 15, wherein a frequency of said first high-frequency power is the same as that of said second high-frequency power.

17. An etching method according to claim 15, wherein said dry etching apparatus is a parallel-plate etching apparatus or an ICP-type etching apparatus.

18. An etching method using a dry etching apparatus, the method comprising the steps of:

disposing a substrate on a plurality of electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to an electrode disposed below a central portion of said substrate and applying a second high-frequency power to electrodes disposed

below corner portions of said substrate;

generating plasma with a magnetic field or an electric field; and

etching a material film on said substrate disposed on said plurality of electrodes.

19. An etching method according to claim 18, wherein said dry etching apparatus is one selected from the group consisting of a magnetron-type etching apparatus, an ECR-type etching apparatus, and a helicon-type etching apparatus.

20. A method of forming a wiring, the method comprising the steps of:

forming a conductive film on a substrate;

selectively forming a mask on said conductive film;

disposing said substrate on a second electrode comprising a plurality of electrodes provided in a chamber of a dry etching apparatus provided with a first electrode and said second electrode opposed to each other;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to an electrode disposed below a central portion of said substrate and applying a second high-frequency power to electrodes disposed below corner portions of said substrate to apply an AC electric field between said first electrode and said second electrode;

generating plasma between said first electrode and said second electrode; and

selectively etching said conductive film on said substrate.

21. A method of forming a wiring according to claim 20, wherein said wiring is a gate electrode or a gate wiring of a TFT.

22. An etching method using a dry etching apparatus,

providing a first electrode, a plurality of second electrodes being independent from each other, and a plurality of high-power sources independently connected to each of said first electrode and said plurality of second electrodes, the method comprising the steps of:

disposing a substrate on said plurality of second of electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma between said first electrode and said plurality of second electrodes; and

etching a material film on said substrate disposed on said plurality of second electrodes,

wherein said plurality of second electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform.

23. An etching method according to claim 22, wherein the dry etching apparatus is one selected from the group consisting of a magnetron-type etching apparatus, an ECR-type etching apparatus, and a helicon-type etching apparatus.

24. A method of manufacturing a semiconductor device using a dry etching apparatus,

providing a first electrode and a plurality of second electrodes being independent from each other, the method comprising the steps of:

forming a material film on a substrate;

selectively forming a mask on said material film;

disposing said substrate on said plurality of second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to an electrode disposed below a central portion of said substrate and applying a second high-frequency power to electrodes disposed below corner portions of said substrate;

generating plasma between said first electrode and said plurality of second electrodes; and

etching a material film on said substrate disposed on said plurality of second electrodes.

25. A method of manufacturing a semiconductor device according to claim 24, wherein said semiconductor device is incorporated into an electronic device selected from the group consisting of a personal computer, a video camera, a mobile computer a goggle type display, a player, a digital camera, a front type projector, a rear type projector, a portable telephone a portable book, and a display.